Trans-Lake Washington Project EIS Methodology Report – 6/10/02

Hazardous Materials

Guiding Plans and Policies

The following laws, statues, and guidelines address potential hazardous materials.

Federal

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 et seq.
- Small Business Liability Relief and Brownfields Revitalization Act (SABRA)
- Resource Conservation and Recovery Act (RCRA), 42 USC 321 et seq.
- Occupational Safety and Health Act, 29 USC 651 et seq.
- Clean Water Act, 33 USC 1251 et seq.
- Safe Drinking Water Act, 42 USC 300(f) et seq.
- Clean Air Act, 42 USC 7401 et seq.
- Toxic Substances Control Act, 15 USC 2601 et seq.
- Endangered Species Act, 7 USC 134, 16 USC 460 et seq.
- Federal Highway Administration, Technical Advisory T6640.8A (1987), *Supplementary Hazardous Waste Guidance* (1997), and *Hazardous Wastes in Highway Rights-of-Way* (1994)

Washington State

- Hazardous Waste Management Act, Chapter 70.105 RCW
- Model Toxics Control Act, Chapter 70.105D RCW
- Solid Waste Management Act, Chapter 70.95 RCW
- Underground Storage Tanks (UST), Chapter 90.76 RCW
- Water Pollution Control Act, Chapter 90.48 RCW
- Clean Air Act, Chapter 70.94 RCW
- Occupation Health Standards, WAC 296-62
- WSDOT Environmental Procedures Manual, Section 447, July 2001.

Data Needs and Sources

Data needs include information on existing or relevant historical conditions or potential conditions of areas for defined physical improvements of the various build alternatives. These data needs and sources are described below.

Environmental Agency Records

The data sources will include the following environmental agency records:

- Federal National Priorities List Site List
- CERCLA Inventory Superfund Site/Event Listing
- RCRA Information System
- Washington State Confirmed and Suspected Contaminated Sites List
- Washington State Hazardous Sites List
- Washington State Independent Cleanup Reports List
- Washington State Landfill or Solid Waste Site Lists
- Washington State Leaking UST Lists
- Washington State Registered UST Lists

The environmental agency records will be obtained using a service that searches current federal and state agency databases. This information will be relied on; independent verification of the database information will not be performed.

After review of the environmental agency database search results, the Washington State Department of Ecology (Ecology) files for sites identified as contaminated or potentially contaminated within 1/4 mile of the preliminary right-of-way for the proposed alternatives will be reviewed. A cursory review of these files will be conducted to identify:

- Enforcement action in the last 5 years
- Confirmed or suspected contaminated media
- Confirmed or suspected contaminants
- Depth to groundwater and groundwater flow direction, if available
- Cleanup status

Historical Records

The data sources will include the following historical records:

- Historical land use maps
- Historical fire insurance maps (Sanborn Maps)
- Washington State Archive historical tax records

Historical land use maps available in local libraries will be reviewed for areas of the build alternatives outside of the existing WSDOT right-of-way. Ten-year intervals will be searched, up to the earliest record available or 1900, whichever is more recent. Only general changes in land use in the study area will be recorded.

Historical fire insurance maps, if available, will be obtained for areas of the build alternatives outside of the existing WSDOT right-of-way. Selection of these areas will be based partially on information from historical land use maps. Fire insurance maps will be reviewed at approximate 10-year intervals, as available, to the earliest record available or 1900, whichever is more recent. Information on fuel storage tank locations will be recorded, as well as information on former industrial and commercial land uses relevant to this evaluation.

Washington State Archive historical tax records will be reviewed for areas of the build alternatives outside of the existing WSDOT right-of-way. Information on fuel storage tank locations will be recorded, as well as information on former industrial and commercial land uses relevant to this evaluation.

If the available historical sources listed above provide too little information, additional review of historical aerial photographs from WSDOT may be requested.

Study Area Reconnaissance

Right-of-entry to properties in and adjacent to the study area will not be sought. A field reconnaissance, or windshield survey, will be conducted from public access areas to confirm general site conditions and note general age of structures in the study area that may require demolition. A hazardous material survey to determine the presence of hazardous building materials (asbestos, lead-based paint, polychlorinated biphenyls) will not be performed as part of the EIS, but structures older than 1980 may have hazardous building materials present. (A hazardous material survey will be conducted at a later stage of the project, prior to demolition of specific structures.) A review of current aerial photographs of the study area will be conducted prior to the reconnaissance.

Proposed Coordination with Agencies

Coordination with Ecology's Northwest Regional Office or EPA Region 10 staff may be required to better assess impacts if contaminated sites that present a threat to public health or the environment are identified in the agency databases. Issues that may require discussion include:

- Ranking or agency level of concern of contaminated sites identified in agency databases
- Time frames for cleanup of sites.

Proposed Coordination with Team, WSDOT, and Sound Transit

Coordination may be needed with team members, including:

- Team lead for Geology and Soils for information on soils and subsurface conditions to determine environmental consequences resulting from possible contaminant migration

- Team lead for Water Resources to determine possible environmental consequences to groundwater quality;
- Team lead for Surface Water to determine possible environmental consequences to surface water quality
- Team lead for Land Use for additional land use information to prepare the *Affected Environment* section
- WSDOT to obtain historical aerial photographs and relevant information from recent studies
- Sound Transit to obtain possible relevant information on hazardous materials from work performed along LINK light rail alignments that fall within the study area

Study Area

The study area includes the preliminary right-of-way provided for the proposed alternatives, with the following exceptions:

- Environmental agency record databases will be searched for an area up to 1 mile from the center of the right-of-way in general accordance with American Society for Testing and Materials (ASTM) search radius guidance (ASTM E 1527), as referenced in the WSDOT Environmental Procedures Manual M 31-11
- Additional information will be acquired for sites within 1/4 mile of the preliminary right-of-way identified as contaminated or potentially contaminated from the agency databases (refer to *Data Needs and Sources*)

Affected Environment Methodology

The key technical and environmental issues for this analysis include the following:

- Hazardous materials or substances, hazardous wastes, and contaminated environmental media, including soils, sediments, surface water, and groundwater, might be present in the study area and could potentially result in impacts on human health and the environment during construction activities or long-term operation activities.
- Possible hazardous materials or substances used or hazardous wastes generated by implementation of the proposed alternatives could potentially impact human health and the environment during construction activities or during long-term operation activities.
- *De minimis* quantities of hazardous materials, substances, or wastes, or quantities that would not generally present a risk to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies will not be considered.
- Classification of sites as “reasonably predictable” and “substantially contaminated” as defined in WSDOT Environmental Procedures Manual.

The affected environment section will characterize the study area by the known or suspected contaminated sites. The characterization will include:

- Land use history (per Section 447 of the WSDOT Environmental Procedures Manual)
- Physical environment characteristics that may impact the distribution, migration, and cleanup of contamination
- Known or suspected contaminated sites
- Summary of known or suspected contaminants and environmental media
- Cleanup status for contaminated sites
- Summary of the possible extent of hazardous materials (i.e., asbestos, lead-based paint, polychlorinated biphenyls)

Locations of known or suspected contaminated sites will be mapped for the proposed alternatives.

Environmental Consequences Analysis Methodology

The environmental consequences analysis will assess potential direct and construction effects of the proposed alternatives resulting from the presence of hazardous materials, hazardous substances, hazardous wastes, or contaminated environmental media. The analysis will consider impacts on human health and the environment resulting from the possible release of contaminants or alteration of contaminant migration pathways.

Direct Impacts

The proposed alternatives will be analyzed to determine impacts related to:

- Property or right-of-way acquisition
- Data gaps (further investigation needed such as an Initial Site Assessment or Preliminary Site Investigation, or other)
- Time frame to remediate possible contaminated sites; impact on construction costs and schedules
- Human health and environmental health from possible long-term cleanup on or adjacent to the alternatives
- Long-term operation and maintenance

In addition, WSDOT guidance recommends that the impacts discussion summarize applicable regulatory requirements from hazardous materials issues and evaluate potential cost impacts for each alternative from additional studies and cleanup that may be required. These additional elements will be addressed generally or deferred for additional study.

Construction Impacts

Construction impacts will be analyzed based on:

- Release of possible contaminants in soil, sediment, or groundwater to other environmental media such as air or surface water
- Need to dispose of or treat contaminated media offsite

- Alteration of contaminant migration pathways
- Encountering of unknown contamination or USTs
- Demolition of structures with possible hazardous materials
- Hazardous materials or substances used during construction
- Worker and public health and safety
- Regulatory requirements

Mitigation Measure Methodology

The mitigation measures discussion will describe potential mitigation for identified impacts, including known or suspected contamination affected by the proposed alternatives. Mitigation measures may include, but are not limited to:

- Identification of sites to avoid (e.g., modification of footprint)
- Identification of areas to avoid (e.g., modification of design or footprint to avoid contamination at depth, such as groundwater, or contamination of known limited area)
- Measures to avoid impacts through right-of-way property acquisition options
- Spill prevention and control planning
- Contingency planning for unknown contamination
- Design changes to avoid impacts of contaminants on long-term operations
- Hazardous material and hazardous substance management
- Construction measures to avoid disturbance of subsurface (prevent altering contaminant migration pathways) or release of contaminants

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